

**Amendment and Response**

Applicant: Varaprasad Vajjhala et al.

Serial No.: 09/977,511

Filed: October 12, 2001

Docket No.: 10011257-1

Title: METHOD AND SYSTEM TO ALLOCATE RESOURCES WITHIN AN INTERCONNECT DEVICE  
ACCORDING TO A RESOURCE ALLOCATION TABLE

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**REMARKS**

The following remarks are made in response to the Non-Final Office Action mailed November 29, 2005. Claims 1-3, 5-18, and 20-35 were rejected. With this Response, claims 1, 16, and 25 have been amended. Claims 1-3, 5-18, and 20-35 remain pending in the application and are presented for reconsideration and allowance.

**Claim Rejections under 35 U.S.C. § 103**

The Examiner rejected claims 1-3, 5-18, 20-31, and 35 under 35 U.S.C. § 103(a) as being unpatentable over the Angle et al. U.S. Patent No. 6,661,788 in view of the Rodeheffer et al. U.S. Patent No. 6,614,764.

The Examiner rejected claims 32-34 under 35 U.S.C. § 103(a) as being unpatentable over the Angle et al. U.S. Patent No. 6,661,788 in view of the Rodeheffer et al. U.S. Patent No. 6,614,764, and further in view of the Greene U.S. Patent No. 6,631,419.

The Examiner bears the burden under 35 U.S.C. § 103 in establishing a *prima facie* case of obviousness. M.P.E.P. 2142 and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). One criteria that must be satisfied to establish a *prima facie* case of obviousness is the reference or combined references must teach or suggest all of the claim limitations. M.P.E.P. 2143 and *In re Royka*, 490 F.2d 981, 180 USPQ 580 (C.C.P.A. 1974).

In the Non-Final Office Action mailed January 14, 2005, the Final Office Action mailed July 19, 2005, and the Non-Final Office Action mailed November 29, 2005 the Examiner admits that the Angle et al. patent fails to teach the limitations of independent claims 1, 16, 31, and 35 of "the list being ordered in accordance with an order of appearance." The Examiner states that the Rodeheffer et al. patent teaches "listing in a data table by order of their appearance connections of resource consumers."

However, the Angle et al. patent also does not teach or suggest the limitations of independent claims 1, 16, 31, and 35 of "a plurality of resource consumers" comprising "a plurality of data streams supported by the interconnect device," wherein the resource capacity comprises "a bandwidth on a physical link shared by the plurality of data streams supported by the interconnect device." These limitations essentially define multiple data virtual lanes (VLs) supported by an interconnect device. In contrast, Angle et al. teaches a method and apparatus for scheduling multicast data in an input-queued network device. A scheduler

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receives a transmit request associated with each of a plurality of **input ports**. The transmit request identifies **output ports** to which pending multicast cells are ready to be transmitted. (See Abstract)

The above method and apparatus for scheduling multicast data taught in Angle et al. patent in no way teaches or suggests the limitations of independent claims 1, 16, 31, and 35 of "a plurality of resource consumers" comprising "a plurality of data streams supported by the interconnect device," wherein the resource capacity comprises "a bandwidth on a physical link shared by the plurality of data streams supported by the interconnect device." For this reason and for the reason admitted by the Examiner that the Angle et al. patent fails to teach the limitations of independent claims 1, 16, 31, and 35 of "the list being ordered in accordance with an order of appearance," the Angle et al. patent does not teach or suggest the limitation of "the ranking vector comprising a list of resource consumers of the plurality of resource consumers, the list being ordered in accordance with an order of appearance of a first allocation entry for a respective resource consumer within the resource allocation table."

As indicated above, the Examiner states that the Rodeheffer et al. patent teaches "listing in a data table by order of their appearing connections of **resource consumers**," Applicant respectfully submits that the Rodeheffer et al. patent does not teach this specific limitation. Moreover, the combination of Rodeheffer et al. patent and Angle et al. patent does not teach or suggest the limitations of independent claims 1, 16, 31, and 35 of the ranking vector comprising "a list of resource consumers of the plurality of resource consumers, the list being ordered in accordance with an order of appearance of a first allocation entry for a respective consumer within the resource allocation table."

The Rodeheffer et al. patent teaches a bridged network and method for performing bridged network topology acquisition. The bridged network topology acquisition in each of the smart bridges operates cooperatively with the bridged network topology acquisition in other smart bridges in order to create a total network report from most recent segment inventories. The bridged network topology acquisition includes propagation, collection, and distribution. The bridged network topology acquisition affords better management of the network topology changes. In one embodiment discussed in the Rodeheffer et al., at column 44, the bridged network topology acquisition is based on the "symmetry" property which is proved by considering that the weight of a path is simply the sum of the weights of its edges.

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One way to assign edge weights that satisfy edge weight properties is based on a total ordering of edges. The ordering can be derived from the order in which connections are listed in the total network report. Alternatively, the ordering can be derived by comparing the bridge and segment identifiers that describe connections, or any other deterministic way.

The above bridged network topology acquisition scheme taught in the Rodeheffer et al. patent in no way teaches or suggests "listing in a data table by order of their appearing connections of **resource consumers**." Furthermore, the Rodeheffer et al. patent in combination with the Angle et al. patent does not teach or suggest the ranking vector comprising the list of resource consumers being ordered in accordance with an order of appearance of a first allocation entry for a respective resource consumer within the resource allocation table, wherein the resource consumers comprise the plurality of data streams supported by the interconnect device and the resource capacity comprises bandwidth on the physical link shared by the plurality of data streams supported by the interconnect device as recited in independent claims 1, 16, 31, and 35.

Therefore, the Angle et al. patent and the Rodeheffer et al. patent do not teach or suggest alone or in combination all the limitations of the method of amended independent claim 1, the system of amended independent claim 16, the machine-readable medium of independent claim 31, or the system of amended independent claim 35. In addition, dependent claims 2-3 and 5-15 further define patentably distinct independent claim 1; dependent claims 17-18 and 20-30 further define patentably distinct independent claim 16; and dependent claims 32-34 further define patentably distinct independent claim 31. Therefore, these dependent claims are also believed to be allowable.

Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejections to claims 1-3, 5-18, and 20-35, and request allowance of these claims.

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**CONCLUSION**

In view of the above, Applicant respectfully submits that pending claims 1-3, 5-18, and 20-35 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-3, 5-18, and 20-35 are respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-3718.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

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Any inquiry regarding this Amendment and Response should be directed to either Patrick G. Billig at Telephone No. (612) 573-2003, Facsimile No. (612) 573-2005 or John Pessetto at Telephone No. (303) 298-9888, Facsimile No. (303) 297-2266. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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**CERTIFICATE UNDER 37 C.F.R. 1.8:**

The undersigned hereby certifies that this paper or papers, as described herein, are being transmitted via facsimile to Facsimile No. (571) 273-8300 on this 28th day of February, 2006.

By: 

(Name: Patrick G. Billig)